



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,249	08/28/2001	David Kingsley Clark	AUS9-2001-0722-US1	5909

40412 7590 04/29/2005

IBM CORPORATION- AUSTIN (JVL)  
C/O VAN LEEUWEN & VAN LEEUWEN  
PO BOX 90609  
AUSTIN, TX 78709-0609

EXAMINER

STREGE, JOHN B

ART UNIT	PAPER NUMBER
----------	--------------

2625

DATE MAILED: 04/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/941,249

**Applicant(s)**

CLARK ET AL.

**Examiner**

John B Strege

**Art Unit**

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: 4/25/05.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Response to Arguments***

Applicant's arguments filed 4/12/05 have been fully considered but they are not persuasive.

The Applicant states that "the Examiner admits that Cumbers does not disclose computing a biometric signature corresponding to the biometric input."

The Examiner admitted only that Cumbers does not explicitly disclose "computing a biometric signature corresponding to the biometric input." However as stated by Cumbers the face image is received and then the systems analyze particular features, such as the distance between the eyes and the nose, and the shape and location of the cheek bones (col. 5 lines 58-61). One of ordinary skill in the art would read this as computing a biometric signature since it is biometric information, furthermore the definition of a signature according to Websters dictionary is "something that serves to identify; also: a characteristic mark." The applicant discloses that a biometric signature is "generated by taking raw biometric data, sampling the data, aggregating the data, and then hashing the data into a biometric signature", however this is not disclosed in the claims, therefore the broadest interpretation of the word biometric signature was given. Examiner further relied upon the Musgrave reference in the case for obviousness which discloses the limitations of the biometric signature (see at least figure 3, also col. 2 lines 18-27). Furthermore as pointed out by the Examiner, Cumbers discloses that the features of the face such as spacing between eye pupils, mouth shape, configuration of the eyes, nose and mouth are highlighted (col. 7 lines 5-8) and a comparison is made with the library of stored customers (col. 4 lines 28-30

step 108). Thus the limitation of comparing the biometric signature to one or more stored biometric signatures is met.

Applicant further argues that there is no motivation to combine Cumbers and Musgrave and that they are not analogous art. Applicant states, "the point of Cumbers is to recognize customers, while the point of Musgrave is to find a way to authenticate users when they can not be seen and/or recognized. Musgrave's authentication would seem to require a customer to purposely hide from or circumvent Cumbers' identification and tracking system."

Examiner respectfully disagrees with this statement. Cumbers explicitly discloses that if a customer is known to the establishment, for example a gaming facility, the customer may then be allowed to access any information with respect to his frequent player card or account (col. 4 lines 52-67). Musgrave discloses that with electronic transactions there is a need to recognize (as does Cumbers) and verify the authenticity of a remote user (col. 1 lines 28-45). Musgrave further discloses that the use of cryptographic techniques provides greater integrity, privacy and a degree of authentication for electronic services consumers (col. 1 lines 55-65). Since Cumbers discloses providing access to personal information it would be obvious to one of ordinary skill in the art that encrypting the information would allow for added security for customers to avoid being the victims of identity fraud. Cumbers and Musgrave are analogous art because they are both from the same field of endeavor of biometric identification, and as stated there is motivation for combining them.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 8-11, 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cumbers USPN 6,554,705 in view of Musgrave et al. USPN 6,202,151 (hereinafter "Musgrave").

Claim 1 discloses, "a method of processing a biometric input, said method comprising: receiving the biometric input from a biometric receiving device; computing a biometric signature corresponding to the biometric input; comparing the biometric signature to one or more stored biometric signatures; determining a match based on the comparing; identifying an action based on the determination; and performing the identified action."

Cumbers discloses a passive biometric system for identifying and tracking people anonymously in a commercial or business environment (col. 1 lines 6-10). Upon entering a predesignated area, biometric information capable of positively identifying the customer is taken by the establishment by any known technical method (col. 3 lines 60-63). One of these possible biometric methods is face recognition (col. 4 line 4). Cumbers does not explicitly disclose computing a biometric signature, however does

disclose that the face in the image is isolated and data corresponding to unalterable features of the face such as spacings between eye pupils, mouth shape, configuration of the eyes, nose and mouth are highlighted (col. 7 lines 5-8). As seen in figure 4 a library of stored customers biometric data is searched for matching biometric data (col. 4 lines 28-30 step 108). If a match is determined then information is retrieved about the customer from a matching file (step 112) and if this information is negative information then a message is sent to security (step 114), or if it is determined that the person is a regular customer an alert may be sent to an employee to give the customer special attention (step 122 col. 4 lines 62-67).

As stated Cumbers does not explicitly disclose computing a biometric signature.

Musgrave discloses a system for making secure communications (col. 1 lines 13-15) and states that the combination of cryptographic techniques, including public key cryptography, and the use of digital certificates provides greater integrity, privacy and a degree of authentication for on-line electronic transactions which instills a greater level of confidence in the electronic services consumer (col. 1 lines 60-65). To go about doing this Musgrave discloses taking biometric data (26 of figure3) and using a hash function (34) to create a biometric certificate (38). This biometric certificate is analogous to a biometric signature.

Cumbers and Musgrave are analogous art because they are from the same field of endeavor of biometric identification for commercial purposes.

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine Cumbers and Musgrave to form a biometric signature from the

Art Unit: 2625

biometric data. The motivation for doing so would be to make the information of the user more secure. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Cumbers and Musgrave to obtain the invention as specified in claim 1.

Regarding claim 2, as discussed with Cumbers based on the match of the user an alert may be sent to the police, or to personnel to give attention to the customer. Here the alert can be read as a message, and the proper recipient (the police, or the personnel) is identified. It is inherent that a message is prepared since a message could not be sent if it were not prepared.

Regarding claims 3-4, Musgrave discloses (col. 2 lines 18-27, col. 4 lines 14-22, and col. 5 lines 27-35) that the authentication certificate is encrypted using the private key to generate a digital signature. The digital signature is then appended to the authenticating certificated and the message, such as an electronic transaction, for transmission over a network.

Claim 8 is similar to claim 1 with the added limitations of processors, memory, and storage devices accessible by the processors. The remaining limitations have already been discussed. Cumbers discloses a central computer system (106 figure 4) that has processors, memory, and storage (col. 4 lines 15-39). Thus the same arguments used for claim 1 apply equally to claim 8.

Claims 9-11 are similar to claims 2-4, thus the same arguments used for claims 2-4 apply equally to claims 9-11.

Claims 15-18 are similar to claims 1-4, thus the same arguments used for claims 1-4 apply equally to claims 15-18.

3. Claims 5-7, 12-14, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cumbers USPN 6,554,705 in view of Musgrave et al. USPN 6,202,151 and further in view of Maeno USPN 5,283,644.

Regarding claim 5, as discussed Cumbers discloses identifying a visual image of the person corresponding to the biometric signature, and sending a message. However, neither Cumbers nor Musgrave explicitly disclose including an image in the message.

Maeno discloses a crime prevention monitor system that uses facial recognition to decide if an intruder is present (as stated at least in the abstract). As seen in figure 4, if the person is detected to be an intruder a report with a picture of the individual is sent to the police.

Cumbers, Musgrave, and Maeno are analogous art because they are from the same field of endeavor of using biometrics for commercial purposes.

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine Cumbers, Musgrave, and Maeno to include a picture of the person along with the alert. The motivation for doing so would be to allow the security to know what the person looks like to apprehend the suspect more easily. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Cumbers, Musgrave, and Maeno to obtain the invention as specified in claim 5.



Regarding claims 6-7, Maeno discloses that there are a plurality of monitor regions (col. 2 lines 50-54) and as seen in figure 4 the exact location of the person is disclosed (listed as features: president room located rightward deep from entrance...). It is well known in the art that a plurality of regions can be covered either by moving the biometric receiving device about (in this case a camera) or by having multiple cameras and thus the examiner declares official notice. It would be obvious to use multiple biometric devices so that different rooms of a building could be monitored, instead of only one moveable camera.

Claims 12-14 are similar to claims 5-7, thus the same arguments used for the rejection of claims 5-7 apply equally to claims 12-14.

Claims 19-21 are similar to claims 5-7, thus the same arguments used for the rejection of claims 5-7 apply equally to claim 19-21.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2625

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

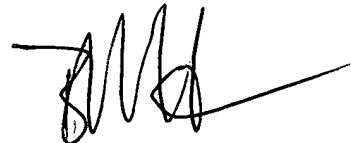
***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B Strege whose telephone number is (571) 272-7457. The examiner can normally be reached on Monday-Friday between the hours of 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JS



**BHAVESH M. MEHTA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600**